

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number
WO 2005/013445 A1

(51) International Patent Classification⁷: H01S 3/067, 3/10 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/GB2004/003330

(22) International Filing Date: 2 August 2004 (02.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 0317952.0 31 July 2003 (31.07.2003) GB

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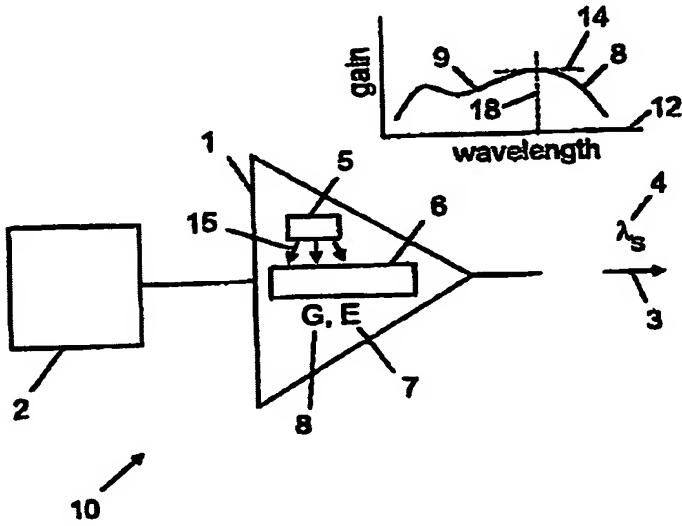
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:
— of inventorship (Rule 4.17(iv)) for US only

Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LD PUMPED FIBRE AMPLIFIER WITH SECOND RESONATOR OR INPUT SIGNAL FOR GAIN LIMITATION



(57) **Abstract:** Apparatus (10) for providing optical radiation (3) having a signal wavelength λ_s (4), which apparatus (10) comprises at least one pump (5) for providing pump radiation (15), a gain medium (6), and energy limiting means (2), in which the pump radiation (15) acts on the gain medium (6) to provide stored energy (7) and gain (8) for optical amplification, characterised in that the gain (8) has a maximum gain (14) at a wavelength (18) at which the maximum gain occurs (14), and the energy limiting means (2) limits the maximum gain (14) and the amount of stored energy (7) that is able to be stored to values below those at which the stored energy (7) will cause damage to the apparatus (10).